COMPLETED WORK:

A. DELIVER COMPLETED WORK AS CALLED FOR BY THE CONTRACT TO THE OWNER FREE FROM LIENS, CLAIMS OR ENCUMBRANCES OF ANY DESCRIPTION WHATSOEVER AGAINST THE OWNER. ACCEPTANCE OF SUCH WORK IS DEFINED AS APPROVAL OF FINAL PAYOUT.

B. IF OWNER RECEIVES NOTICE OF CLAIM TO BE FILED OR IF A CLAIM IS FILED AS A RESULT OF CONTRACTOR'S NON-PAYMENT, OWNER POSSESSES THE RIGHT UNDER THE CONSTRUCTION CONTRACT TO EITHER SETTLE THE CLAIM AND DEDUCT SOME FROM THE CONTRACT SUM OR TO REQUIRE THE CONTRACTOR TO BOND OVER SUCH SMALL CLAIMS, INCLUDING ANY ASSOCIATED EXPENSES AS DEFINED IN THE CONSTRUCTION CONTRACT AND TO PROMPTLY DEFEND TO CONCLUSION OWNER AND OWNER'S INTEREST AGAINST SAID CLAIM OR CLAIMS.

C. COMPLETION OF WORK ON THE PROJECT REQUIRES THE SUBMISSION BY THE CONTRACTOR OF CERTAIN DOCUMENTATION IN ORDER FOR THE FINAL RETENTION DRAW TO BE PAID TO THE CONTRACTOR. THE SUBMISSION OF THESE DOCUMENTS IS DEFINED IN THE CONSTRUCTION CONTRACT AND IS INCLUSIVE OF THE FOLLOWING ITEMS: RECORD DRAWINGS AND SPECIFICATIONS INCLUDING MICROFICHE COPIES; LIEN WAIVERS FROM CONTRACTOR AND SUB-CONTRACTORS AND MATERIAL MEN; LIST OF ALL SUBCONTRACTORS AND MATERIAL MEN; CONTRACTOR'S GUARANTEE AND COMPLETION AFFIDAVIT; FINAL SIGNED PUNCH LISTS; ANY WORK ORDERS AND ASSOCIATED CONTRACT CHANGE ORDERS; CERTIFICATE OF OCCUPANCY AND ANY RELATED PUBLIC AGENCY; CERTIFICATION OF PROJECT COMPLETION; COPIES OF PROJECT INSPECTION REPORTS; PERMITTED SET OF DRAWINGS AND SPECIFICATIONS; ALL WARRANTIES; ALL CERTIFICATIONS NOTED IN THE DRAWINGS INCLUDING CIVIL DRAWINGS, THE BID DOCUMENTS AND CONSTRUCTION CONTRACT; AND ANY REQUIRED TEST AND/OR ENGINEERING REPORTS.

MAINTENANCE AND CLEANING:

A. THROUGHOUT THE PERIOD OF CONSTRUCTION, BE RESPONSIBLE FOR SATISFACTORILY MAINTAINING THE PREMISES IN A NEAT AND CLEAN CONDITION. THIS MEANS THE TIMELY REMOVAL OF ALL REFUSE AND DEBRIS FROM THE PREMISES.

B. STORE ALL EQUIPMENT AND MATERIALS IN A NEAT MANNER AND PROTECT THEM FROM ANY DAMAGE FROM THE ELEMENTS. MAINTAIN THE BUILDING IN A GENERALLY CLEAN CONDITION DURING THE PERIOD OF CONSTRUCTION, AND UPON FINAL COMPLETION PROVIDE A PROFESSIONAL SERVICE TO THOROUGHLY CLEAN ALL GLASS, FLOORS, FURNITURE AND EQUIPMENT.

CHANGES:

A. THE OWNER, WITHOUT INVALIDATING THE CONTRACT, MAY ORDER CHANGES IN THE WORK WITHIN THE GENERAL SCOPE OF THE CONTRACT, CONSISTING OF ADDITIONS, DELETIONS, OR OTHER REVISION. THE CONTRACT SUM AND THE CONTRACT TIME WILL BE ADJUSTED ACCORDINGLY. AN OWNER CONTRACT CHANGE ORDER MAY BE ISSUED BY AN OWNER'S CONSTRUCTION MANAGER BUT MUST BE APPROVED BY THE VICE PRESIDENT FACILITY DEVELOPMENT PRIOR TO PAYMENT, FOR CORPORATE PROJECTS.

B. THE COST OR CREDIT TO THE OWNER RESULTING FROM A CHANGE IN THE WORK WILL BE DETERMINED BY MUTUAL AGREEMENT. PERFORM ALL WORK UNDER THE APPLICABLE CONDITIONS OF THE CONTRACT DOCUMENTS.

C. OBTAIN WRITTEN AUTHORIZATION FOR CHANGES IN THE WORK (CONSTRUCTION WORK ORDER) FROM THE OWNER'S CONSTRUCTION MANAGER PRIOR TO COMPLETION OF THE WORK.

GUARANTEE:

A. A FULLY AND UNCONDITIONALLY GUARANTEE ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED BY THE OWNER - CONTRACTOR AGREEMENT(S) FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OR THE DATE THE RESTAURANT IS OPENED FOR BUSINESS BY THE OWNER.

SECTION 030000 - CAST-IN-PLACE CONCRETE

REFER TO STRUCTURAL DRAWINGS FOR SPECIFICATION

SECTION 047200 - CAST STONE MASONRY

1.1 SUMMARY

A. THIS SECTION INCLUDES THE FOLLOWING:
1. CAST STONE TRIM.

1.2 SUBMITTALS

A. PRODUCT DATA: INCLUDE DIMENSIONS OF INDIVIDUAL COMPONENTS.
B. SAMPLES: FOR EACH COLOR AND TEXTURE OF CAST STONE REQUIRED.

1.3 QUALITY ASSURANCE

A. MANUFACTURER QUALIFICATIONS: A QUALIFIED MANUFACTURER OF CAST STONE UNITS SIMILAR TO THOSE INDICATED FOR THIS PROJECT, WITH SUFFICIENT PRODUCTION CAPACITY TO MANUFACTURE REQUIRED UNITS.
1. MANUFACTURER IS A PRODUCING MEMBER OF THE CAST STONE INSTITUTE.

B. PROVIDE CAST STONE UNITS COMPLYING WITH ASTM C 1364 USING THE VIBRANT DRY TAMP OR WET-CAST METHOD.

1.4 MANUFACTURERS

A. AS SPECIFIED ON DRAWINGS.
B. COLOR AND TEXTURES AS INDICATED ON THE DRAWINGS.

1.5 ACCESSORIES

A. ANCHORS AND DOWELS: TYPE 304 STAINLESS STEEL OR HOT-DIP GALVANIZED STEEL.
B. PROPRIETARY ACIDIC CLEANER: MANUFACTURER'S STANDARD-STRENGTH, GENERAL-PURPOSE CLEANER COMPLYING WITH REQUIREMENTS IN DIVISION 04 SECTION "UNIT MASONRY ASSEMBLIES" AND APPROVED FOR INTENDED USE BY CAST STONE MANUFACTURER AND APPROVED BY CLEANER MANUFACTURER FOR USE ON CAST STONE AND ADJACENT MASONRY MATERIALS.

1.6 MORTAR

A. COMPLY WITH REQUIREMENTS IN DIVISION 04 SECTION "UNIT MASONRY" FOR MORTAR MATERIALS AND MIXES.
1. FOR SETTING MORTAR, USE TYPE N.
2. FOR POINTING MORTAR, USE TYPE N.
3. PIGMENTED MORTAR: AS INDICATED ON DRAWINGS.

PART 2 - EXECUTION

2.1 SETTING CAST STONE IN MORTAR

A. INSTALL CAST STONE UNITS TO COMPLY WITH REQUIREMENTS IN DIVISION 04 SECTION "UNIT MASONRY ASSEMBLIES."
B. SET UNITS IN FULL BED OF MORTAR WITH FULL HEAD JOINTS, UNLESS OTHERWISE INDICATED.
1. FILL DOWEL HOLES AND ANCHOR SLOTS WITH MORTAR.
2. FILL COLLAR JOINTS SOLID AS UNITS ARE SET.
3. BUILD CONCEALED FLASHING INTO MORTAR JOINTS AS UNITS ARE SET.
4. KEEP HEAD JOINTS IN COPINGS AND OTHER UNITS WITH EXPOSED HORIZONTAL SURFACES OPEN TO RECEIVE SEALANT.
5. KEEP JOINTS AT SHELF ANGLES OPEN TO RECEIVE SEALANT.

C. RAKE OUT JOINTS FOR POINTING WITH MORTAR TO DEPTHS OF NOT LESS THAN 3/4 INCH (19 MM). RAKE JOINTS TO UNIFORM DEPTHS WITH SQUARE BOTTOMS AND CLEAN SIDES. SCRUB FACES OF UNITS TO REMOVE EXCESS MORTAR AS JOINTS ARE RAKED.

D. TOOL EXPOSED JOINTS SLIGHTLY CONCAVE WHEN THUMBPRINT HARD, USING A JOINTER LARGER THAN JOINT THICKNESS, UNLESS OTHERWISE INDICATED.

E. PROVIDE EXPANSION, CONTROL, AND PRESSURE-RELIEVING JOINTS OF WIDTHS AND AT LOCATIONS INDICATED. KEEP JOINTS FREE OF MORTAR AND OTHER RIGID MATERIALS.

F. PREPARE JOINTS INDICATED TO RECEIVE SEALANT AND APPLY SEALANT OF TYPE AND AT LOCATIONS INDICATED TO COMPLY WITH APPLICABLE REQUIREMENTS IN DIVISION 07 SECTION "JOINT SEALANTS."

2.2 SETTING ANCHORED CAST STONE WITH SEALANT-FILLED JOINTS

A. SET CAST STONE UNITS ACCURATELY IN LOCATIONS INDICATED WITH EDGES AND FACES ALIGNED.
1. INSTALL ANCHORS, SUPPORTS, FASTENERS, AND OTHER ATTACHMENTS TO ADJACENT CONSTRUCTION TO SECURE UNITS IN PLACE.
2. SHIM AND ADJUST ANCHORS, SUPPORTS, AND ACCESSORIES.

B. FILL ANCHOR HOLES WITH SEALANT. WHERE DOWEL HOLES OCCUR AT PRESSURE-RELIEVING JOINTS, PROVIDE COMPRESSIBLE MATERIAL AT ENDS OF DOWELS.

C. SET CAST STONE SUPPORTED ON CLIP OR SHELF ANGLES ON RESILIENT SETTING PADS. HOLD PADS BACK FROM FACE OF CAST STONE AT JOINTS WITH AT LEAST EQUAL THICKNESS OF JOINT.

D. KEEP JOINTS FREE OF MORTAR AND OTHER RIGID MATERIALS. PROVIDE TEMPORARY SPACERS FROM JOINTS AFTER ANCHORS AND SUPPORTS ARE SECURED IN PLACE AND CAST STONE UNITS ARE ANCHORED.

E. PREPARE JOINTS AND APPLY SEALANT OF TYPE AND AT LOCATIONS INDICATED TO COMPLY WITH APPLICABLE REQUIREMENTS IN DIVISION 07 SECTION "JOINT SEALANTS."

2.3 ADJUSTING AND CLEANING

A. REMOVE DAMAGED, CHIPPED, AND OTHERWISE DAMAGED UNITS NOT MATCHING APPROVED SAMPLES. CAST STONE THAT CAN BE REPAIRED BY METHODS APPROVED ARE APPROVED BY ARCHITECT.
1. REPLACE UNITS IN A MANNER THAT SHOWS NO EVIDENCE OF REPLACEMENT.

IN-PROGRESS CLEANING: CLEAN CAST STONE AS WORK PROGRESSES.
1. REMOVE MORTAR STAINS AND SPATTERS BEFORE TOOLING JOINTS.
2. REMOVE EXCESS SEALANT IMMEDIATELY, INCLUDING SPILLS, SMEARS, AND SPATTER.

FINAL CLEANING: AFTER MORTAR IS THOROUGHLY SET AND CURED, CLEAN EXPOSED CAST STONE TO COMPLY WITH REQUIREMENTS IN DIVISION 04 SECTION "UNIT MASONRY."

SECTION 040200 - UNIT MASONRY

PART 1 - GENERAL

1.1 SUMMARY

A. THIS SECTION INCLUDES UNIT MASONRY ASSEMBLIES CONSISTING OF THE FOLLOWING:
1. CONCRETE MASONRY UNITS.
2. FACE BRICK.

B. SEE DIVISION 5 SECTION "METAL FABRICATIONS" FOR FURNISHING STEEL LINTELS INSTALLED IN UNIT MASONRY ASSEMBLIES.

C. SEE DIVISION 07 SECTION "SHEET METAL FLASHING AND TRIM" FOR FURNISHING MANUFACTURED REGLETS INSTALLED IN MASONRY JOINTS FOR METAL FLASHING.

1.2 PROJECT CONDITIONS

A. COLD-WEATHER REQUIREMENTS: DO NOT USE FROZEN SUBSTRATES. REMOVE AND REPLACE UNIT MASONRY DAMAGED BY FROST OR BY FREEZING CONDITIONS. COMPLY WITH COLD-WEATHER CONSTRUCTION REQUIREMENTS CONTAINED IN ACI 530/ASCE 6/TMS 602.

B. HOT-WEATHER REQUIREMENTS: WHEN AMBIENT TEMPERATURE EXCEEDS 100 DEG F, OR 90 DEG F WITH A WIND VELOCITY GREATER THAN 8 MPH, DO NOT SPREAD MORTAR BEDS MORE THAN 48 INCHES AHEAD OF MASONRY. SET MASONRY UNITS WITHIN ONE MINUTE OF SPREADING MORTAR. COMPLY WITH HOT-WEATHER CONSTRUCTION REQUIREMENTS CONTAINED IN ACI 530/ASCE 6/TMS 602.

PART 2 - PRODUCTS

2.1 MANUFACTURER, COLOR, AND TEXTURE

A. AS SPECIFIED ON DRAWINGS.

2.2 MASONRY UNITS

A. CONCRETE MASONRY UNITS: ASTM C 90.
1. UNIT COMPRESSIVE STRENGTH: 2800 PSI MINIMUM, AVERAGE NET-AREA COMPRESSIVE STRENGTH.
2. WEIGHT CLASSIFICATION: NORMAL WEIGHT BELOW GRADE AND ABOVE GRADE FOR EXTERIOR EXPOSURE.
3. SPECIAL SHAPES: PROVIDE FOR LINTELS, CORNERS, JAMBS, SASH, CONTROL JOINTS, HEADERS, BONDING, AND OTHER SPECIAL CONDITIONS.
4. INTEGRAL WATER REPELLENT: PROVIDE UNITS MADE WITH LIQUID POLYMERIC, INTEGRAL WATER REPELLENT ADMIXTURE THAT DOES NOT FLEXURAL BOND STRENGTH FOR EXPOSED UNITS.
   a. PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS
1. ACM CHEMISTRESS RAINBLOC
2. BASF; RHEOPEL PLUS
3. W.R. GRACE; 4 CO.; DRY-BLOCK

B. BRICK, GENERAL:

1. PROVIDE UNITS WITHOUT CORES OR FROGS AND WITH EXPOSED SURFACES FINISHED FOR ENDS OF SILLS AND CAPS AND FOR SIMILAR APPLICATIONS THAT WOULD OTHERWISE EXPOSE UNFINISHED BRICK SURFACES.
2. PROVIDE SPECIAL SHAPES FOR APPLICATIONS REQUIRING BRICK OF SIZE, FORM, COLOR, AND TEXTURE ON EXPOSED SURFACES THAT CANNOT BE PRODUCED BY SAWING.

C. FACE BRICK: ASTM C 216, GRADE SW, TYPE FBS.

1. UNIT COMPRESSIVE STRENGTH: 4400 PSI MINIMUM AVERAGE, NET-AREA COMPRESSIVE STRENGTH.
2. INITIAL RATE OF ABSORPTION: LESS THAN 20 G/30 SQ. IN. PER MINUTE WHEN TESTED PER ASTM C 67.
3. EFFLORESCENCE: WHEN TESTED PER ASTM C 67 AND BRICK IS RATED "NOT EFFLORESCED."
4. SURFACE COLORING: BRICK WITH SURFACE COLORING, OTHER THAN FLASHED OR SAND-FINISHED BRICK, WILL WITHSTAND 50 CYCLES OF FREEZING AND THAWING PER ASTM C 67 WITH NO OBSERVABLE DIFFERENCE IN THE APPLIED FINISH WHEN VIEWED FROM 10 FEET.
5. SIZE: AS INDICATED ON DRAWINGS.

2.3 MORTAR AND GROUT MATERIALS

A. PORTLAND CEMENT: ASTM C 150, TYPE I OR II, EXCEPT TYPE III MAY BE USED FOR COLD-WEATHER CONSTRUCTION.

B. HYDRATED LIME: ASTM C 207, TYPE S.

C. AGGREGATE FOR MORTAR: ASTM C 144 EXCEPT FOR JOINTS LESS THAN 1/4 INCH THICK, USE AGGREGATE GRADED WITH 100 PERCENT PASSING THE NO. 16 SIEVE.

D. AGGREGATE FOR GROUT: ASTM C 404.

E. MORTAR PIGMENTS: AS SPECIFIED ON DRAWINGS.

F. WATER: POTABLE.

2.4 REINFORCING STEEL

A. UNCOATED STEEL REINFORCING BARS: ASTM A 615/ ASTM A 615M.

B. MASONRY JOINT REINFORCEMENT: ASTM A 951/ MILL GALVANIZED, CARBON-STEEL WIRE FOR INTERIOR WALLS AND HOT-DIP GALVANIZED, CARBON-STEEL WIRE FOR EXTERIOR WALLS.
4. WIRE SIZE FOR SIDE RODS: 0.1 CM (0.148-INCH DIAMETER.
5. WIRE SIZE FOR CROSS RODS: 0.1 CM (0.148-INCH DIAMETER.
6. SINGLE-WYTHE MASONRY: USE EITHER LADDER OR TRUSS TYPE WITH SINGLE PAIR OF SIDE RODS AND CROSS RODS SPACED NOT MORE THAN 16 INCHES O.C.

2.5 TIES AND ANCHORS

A. MATERIALS, GENERAL: AS FOLLOWS, UNLESS OTHERWISE INDICATED.
1. GALVANIZED, CARBON-STEEL WIRE: ASTM A 82/ WITH ASTM A 153, CLASS B-2 COATING FOR EXTERIOR WALLS AND CLASS 1 COATING FOR INTERIOR WALLS.
2. GALVANIZED STEEL SHEET: ASTM A 366 COLD-ROLLED, CARBON-STEEL SHEET HOT-DIP GALVANIZED AFTER FABRICATION TO COMPLY WITH ASTM A 153 AT EXTERIOR WALLS/ AND ASTM A 653, G60, COMMERCIAL-QUALITY, STEEL SHEET ZINC COATED BY HOT-DIP PROCESS/ ON CONTINUOUS LINES BEFORE FABRICATION AT INTERIOR WALLS.

B. ADJUSTABLE MASONRY-VENEER ANCHORS
1. PROVIDE 2-PIECE ASSEMBLIES THAT ALLOW VERTICAL OR HORIZONTAL ADJUSTMENT BUT RESIST TENSION AND COMPRESSION FORCES PERPENDICULAR TO WALL, FOR ATTACHMENT OVER SHEATHING TO WOOD OR METAL STUDS, AND THAT ARE CAPABLE OF WITHSTANDING A 100-LBF LOAD IN BOTH TENSION AND COMPRESSION WITHOUT DEFORMING OR DEVELOPING PLAY IN EXCESS OF 0.05 INCH.

2.6 EMBEDDED FLASHING MATERIALS

A. CONCEALED FLASHING: FOR FLASHING PARTLY EXPOSED TO THE EXTERIOR, USE METAL FLASHING SPECIFIED ABOVE. FOR FLASHING NOT EXPOSED TO THE EXTERIOR, USE THE FOLLOWING UNLESS OTHERWISE INDICATED:

1. COPPER-LAMINATED FLASHING: MANUFACTURER'S STANDARD LAMINATED FLASHING CONSISTING OF 1-OZ/SQ FT. SHEET COPPER BONDED WITH ASPHALT BETWEEN 2 LAYERS OF GLASS-FIBER CLOTH.

2.7 MISCELLANEOUS MASONRY ACCESSORIES

A. COMPRESSIBLE FILLER: PREMOLDED FILLER STRIPS COMPLYING WITH ASTM D 1056, GRADE 2A1 COMPRESSIBLE UP TO 35 PERCENT; SPRAY-APPLIED RUBBER NEOPRENE.

B. RECTANGULAR PLASTIC WEEPVENT: 3/8" CLEAR POLYCARBONATE 3" BY 1-1/2" BY 3-1/2 INCHES.

2.8 MASONRY CLEANERS

A. PROPRIETARY ACIDIC CLEANER: MANUFACTURER'S STANDARD-STRENGTH CLEANER DESIGNED FOR REMOVING MORTAR/GROUT STAINS, EFFLORESCENCE, AND OTHER NEW CONSTRUCTION STAINS FROM NEW MASONRY WITHOUT DISCOLORING OR DAMAGING SURFACES. USE PRODUCT APPROVED FOR INTENDED USE BY CLEANER MANUFACTURER AND COMPATIBLE WITH MASONRY UNITS BEING CLEANED.

2.9 CAVITY DRAINAGE MATERIAL

A. FREE-DRAINING MESH, MADE FROM POLYMER STRANDS THAT WILL NOT DEGRADE WITHIN THE WALL CAVITY.
1. PROVIDE ONE OF THE FOLLOWING CONFIGURATIONS:
   a. STRIPS, FULL DEPTH OF CAVITY AND 10 INCHES (250 MM) WIDE, WITH DOVETAIL SHAPED NOTCHES 3 INCHES (75 MM) DEEP.
   b. STRIPS, NOT LESS THAN 1-1/2 INCHES (38 MM) THICK AND 10 INCHES (250 MM) WIDE, WITH DIMPLED SURFACE DESIGNED TO CATCH MORTAR DROPPINGS AND PREVENT WEEP HOLES FROM BEING CLOGGED WITH MORTAR.
   c. SHEETS OR STRIPS FULL DEPTH OF CAVITY AND INSTALLED TO FULL HEIGHT OF CAVITY.
2. AVAILABLE PRODUCTS:
   a. ADVANCED BUILDING PRODUCTS INC.; MORTAR BREAK OR MORTAR BREAK II.
   b. ARCHOVATIONS, INC.; CAVCLEAR MASONRY MAT.
   c. DAYTON SUPERIOR CORPORATION, DUR-O-WAL DIVISION; POLYTITE MORTARSTOP.
   d. MORTAR NET USA, LTD.; MORTAR NET.

2.10 MORTAR AND GROUT MIXES

A. GENERAL: DO NOT USE ADMIXTURES, UNLESS OTHERWISE INDICATED. DO NOT USE CALCIUM CHLORIDE IN MORTAR OR GROUT.

B. MORTAR FOR UNIT MASONRY: COMPLY WITH ASTM C 270, PROPORTION SPECIFICATION.

C. GROUT FOR UNIT MASONRY: COMPLY WITH ASTM C 476.
1. PROVIDE GROUT WITH A SLUMP OF 8 TO 11 INCHES AS MEASURED ACCORDING TO ASTM C 143.

D. WATER REPELLENT ADMIXTURE: LIQUID WATER-REPELLENT MORTAR ADMIXTURE INTENDED FOR USE WITH CMU'S CONTAINING INTEGRAL WATER REPELLENT BY SAME MANUFACTURER.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. CUT MASONRY UNITS WITH MOTOR-DRIVEN SAWS. ALLOW UNITS CUT WITH WATER-COOLED SAWS TO DRY BEFORE PLACING, UNLESS WETTING OF UNITS IS SPECIFIED. INSTALL CUT UNITS WITH CUT SURFACES AND, WHERE POSSIBLE, CUT EDGES CONCEALED.

B. SELECT AND ARRANGE UNITS FOR EXPOSED UNIT MASONRY TO PRODUCE A UNIFORM BLEND OF COLORS AND TEXTURES.

C. WETTING OF BRICK: WET BRICK BEFORE LAYING IF THE INITIAL RATE OF ABSORPTION EXCEEDS 30 G/30 SQ. IN. PER MINUTE WHEN TESTED PER ASTM C 67. ALLOW UNITS TO ABSORB WATER SO THEY ARE DAMP BUT NOT WET AT TIME OF LAYING. DO NOT WET CONCRETE MASONRY UNITS.

D. COMPLY WITH TOLERANCES IN ACI 530.1/ASCE 6/TMS 602 AND THE FOLLOWING:
1. FOR CONSPICUOUS VERTICAL LINES, SUCH AS EXTERNAL CORNERS, DOOR JAMBS, REVEALS, AND EXPANSION AND CONTROL JOINTS, DO NOT VARY FROM PLUMB BY MORE THAN 1/4 INCH IN 20 FEET OR 1/2 INCH MAXIMUM.
2. FOR CONSPICUOUS HORIZONTAL LINES, SUCH AS LINTELS, SILLS, PARAPETS, AND REVEALS, DO NOT VARY FROM LEVEL BY MORE THAN 1/4 INCH IN 20 FEET, OR 1/2 INCH MAXIMUM.

3.2 LAYING MASONRY WALLS

A. LAY OUT WALLS IN ADVANCE FOR ACCURATE SPACING OF SURFACE BOND PATTERNS WITH UNIFORM JOINT THICKNESSES AND FOR ACCURATE LOCATION OF OPENINGS, MOVEMENT-TYPE JOINTS, RETURNS, AND OFFSETS. AVOID USING LESS-THAN-HALF-SIZE UNITS, PARTICULARLY AT CORNERS, JAMBS, AND, WHERE POSSIBLE, AT OTHER LOCATIONS.
1. CONCRETE MASONRY UNITS: ONE-HALF RUNNING BOND.
2. FACE BRICK: AS INDICATED ON DRAWINGS.

3.3 JOINTING

A. TOOL EXPOSED JOINTS SLIGHTLY CONCAVE WHEN THUMBPRINT HARD, USING A JOINTER LARGER THAN JOINT THICKNESS, UNLESS OTHERWISE INDICATED.

3.4 CAVITIES

A. KEEP CAVITIES CLEAN OF MORTAR DROPPINGS AND OTHER MATERIALS DURING CONSTRUCTION.

3.5 ANCHORING MASONRY

A. ANCHOR MASONRY VENEERS TO WALL FRAMING WITH MASONRY-VENEER ANCHORS TO COMPLY WITH THE FOLLOWING REQUIREMENTS:
1. FASTEN EACH ANCHOR SECTION THROUGH TO WALL FRAMING WITH TWO METAL FASTENERS OF TYPE INDICATED.
2. SPACE ANCHORS AS INDICATED, BUT NOT MORE THAN 16 INCHES O.C. VERTICALLY AND 16 INCHES O.C. HORIZONTALLY WITH NOT LESS THAN 1 ANCHOR FOR EACH 1.71 SQ. FT. OF WALL AREA. INSTALL ADDITIONAL ANCHORS WITHIN 12 INCHES OF OPENINGS AND AT INTERVALS, NOT EXCEEDING 36 INCHES, AROUND PERIMETER.

3.6 FLASHING, WEEP HOLES AND VENTS

A. GENERAL: INSTALL EMBEDDED FLASHING AND WEEP HOLES IN MASONRY AT SHELF ANGLES, LINTELS, LEDGES, OTHER OBSTRUCTIONS TO DOWNWARD FLOW OF WATER IN WALL, AND WHERE INDICATED.
1. EXTEND FLASHING 4 INCHES AT ENDS AND TURN FLASHING UP NOT LESS THAN 2 INCHES TO FORM A PAN.

B. INSTALL WEEP HOLES IN THE HEAD JOINTS IN EXTERIOR WYTHES OF THE FIRST COURSE OF MASONRY IMMEDIATELY ABOVE EMBEDDED FLASHING. INSTALL VENTS IN VERTICAL HEAD JOINTS AT THE TOP OF EACH CONTINUOUS CAVITY AT SPACING INDICATED.
1. USE RECTANGULAR PLASTIC TUBING TO FORM WEEP HOLES.
2. SPACE WEEP HOLES 24 INCHES O.C.
3. TRIM WICKING MATERIAL USED IN WEEP HOLES FLUSH WITH OUTSIDE FACE OF WALL AFTER MORTAR HAS SET.

3.7 CLEANING

A. CLEAN UNIT MASONRY BY DRY BRUSHING TO REMOVE MORTAR FINS AND SMEARS BEFORE TOOLING JOINTS AS WORK PROGRESSES.

B. AFTER MORTAR IS THOROUGHLY SET AND CURED, CLEAN EXPOSED MASONRY AS FOLLOWS:
1. PROTECT ADJACENT SURFACES FROM CONTACT WITH CLEANER.
2. WET WALL SURFACES WITH WATER BEFORE APPLYING CLEANERS; REMOVE CLEANERS PROMPTLY BY RINSING SURFACES THOROUGHLY WITH CLEAR WATER.
3. CLEAN MASONRY WITH A PROPRIETARY ACIDIC CLEANER APPLIED ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

3.8 MASONRY WASTE DISPOSAL

A. WASTE DISPOSAL: DISPOSE OF CLEAN MASONRY WASTE, INCLUDING BROKEN MASONRY UNITS, WASTE MORTAR AND EXCESS OR SOIL-CONTAMINATED SAND, AND OTHER WASTE MATERIALS AND LEGALLY DISPOSE OF OFF OWNER'S PROPERTY.

SECTION 051200 - STRUCTURAL STEEL FRAMING

REFER TO STRUCTURAL DRAWINGS FOR SPECIFICATION

SECTION 054000 - COLD FORMED METAL FRAMING

REFER TO STRUCTURAL DRAWINGS FOR SPECIFICATION

SECTION 055000 - METAL FABRICATIONS

PART 1 - GENERAL

1.1 SUMMARY

THIS SECTION INCLUDES THE FOLLOWING:
1. MISCELLANEOUS STEEL FRAMING AND SUPPORTS.
2. LOOSE BEARING AND LEVELING PLATES.
3. STEEL LADDERS.
4. LOOSE STEEL LINTELS. (REFER TO STRUCTURAL DRAWINGS FOR LOOSE STEEL LINTEL SPECIFICATION)
5. SHELF ANGLES.
6. TRASH ENCLOSURE GATES.
7. CATCH BASIN FRAME AND GRATE. (REFER TO CIVIL PLANS.)
8. PIPE GUARDS.
9. PIPE BOLLARDS.

PART 2 - PRODUCTS

2.1 METALS

A. METAL SURFACES, GENERAL: PROVIDE MATERIALS WITH SMOOTH, FLAT SURFACES WITHOUT BLEMISHES.

B. FERROUS METALS:
1. STEEL PLATES, SHAPES, AND BARS: ASTM A 36.
2. STEEL PIPE: ASTM A 53, STANDARD WEIGHT (SCHEDULE 40), UNLESS ANOTHER WEIGHT IS INDICATED OR REQUIRED BY STRUCTURAL LOADS.

2.2 PAINT

A. SHOP PRIMER FOR FERROUS METAL (INTERIOR APPLICATIONS): FAST-CURING, LEAD- AND CHROMATE-FREE, UNIVERSAL MODIFIED-ALKYD PRIMER COMPLYING WITH PERFORMANCE REQUIREMENTS IN FS-TT-P-664 AND COMPATIBLE WITH FINISH PAINT SYSTEMS INDICATED.

2.3 FABRICATION

A. CONNECTIONS, GENERAL: USE CONNECTIONS THAT MAINTAIN STRUCTURAL VALUE OF JOINED PIECES.
1. SHEAR AND PUNCH METALS CLEANLY AND ACCURATELY. REMOVE BURRS.
2. WELD CORNERS AND SEAMS CONTINUOUSLY. USE MATERIALS AND METHODS THAT MINIMIZE DISTORTION AND DEVELOP STRENGTH AND CORROSION RESISTANCE OF BASE METALS. OBTAIN FUSION WITHOUT UNDERCUT OR OVERLAP. REMOVE WELDING FLUX IMMEDIATELY. FINISH EXPOSED WELDS SMOOTH AND BLENDED.
3. FABRICATE JOINTS THAT WILL BE EXPOSED TO WEATHER IN A MANNER TO EXCLUDE WATER, OR PROVIDE WEEP HOLES.
4. FORM EXPOSED CONNECTIONS WITH HAIRLINE JOINTS, FLUSH AND SMOOTH, USING CONCEALED FASTENERS WHERE POSSIBLE. LOCATE JOINTS WHERE LEAST CONSPICUOUS.

B. STEEL LADDERS: COMPLY WITH ANSI A14.3, UNLESS OTHERWISE INDICATED.

C. CATCH BASIN FRAME AND GRATE: PROVIDE CATCH BASIN FRAME WITH TYPE "A" GRATE.

D. PIPE BOLLARDS: FABRICATE FROM SCHEDULE 40 STEEL PIPE.

E. TRASH ENCLOSURE GATES: AS SPECIFIED AND DETAILED ON DRAWINGS.

2.4 FINISHES

A. FINISH METAL FABRICATIONS AFTER ASSEMBLY. COMPLY WITH NAAMM'S "METAL FINISHES MANUAL FOR ARCHITECTURAL AND METAL PRODUCTS" FOR RECOMMENDATIONS FOR APPLYING AND DESIGNATING FINISHES. SHOP PRIME FERROUS-METAL ITEMS NOT INDICATED TO BE GALVANIZED.

PART 3 - EXECUTION

3.1 INSTALLATION

1. GENERAL: PROVIDE ANCHORAGE DEVICES AND FASTENERS WHERE METAL FABRICATIONS ARE REQUIRED TO BE FASTENED TO IN-PLACE CONSTRUCTION.
2. FIT EXPOSED CONNECTIONS ACCURATELY TOGETHER. WELD CONNECTIONS, UNLESS OTHERWISE INDICATED. DO NOT WELD, CUT, OR ABRADE GALVANIZED SURFACES.

B. BOLLARDS:
1. ANCHOR IN CONCRETE WITH PIPE SLEEVES PRESET AND ANCHORED INTO CONCRETE. FILL SPACE BETWEEN AND SLEEVE SOLIDLY WITH NONSHRINK, NONMETALLIC GROUT.
2. FILL BOLLARDS SOLIDLY WITH CONCRETE; MOUNDING TOP SURFACE.

C. TOUCH UP SURFACES AND FINISHES AFTER ERECTION.
1. PAINTED SURFACES: CLEAN FIELD WELDS, BOLTED CONNECTIONS, AND ABRADED AREAS AND TOUCH UP PAINT WITH THE SAME MATERIAL AS USED FOR SHOP PAINTING.

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. THIS SECTION INCLUDES THE FOLLOWING:
1. WOOD FRAMING (REFER TO STRUCTURAL DRAWINGS FOR WOOD FRAMING SPECIFICATIONS)
2. WOOD SUPPORTS
3. WOOD BLOCKING
4. WOOD CANTS
5. WOOD NAILERS
6. WOOD FURRING
7. WOOD GROUNDS
8. WOOD SHEATHING (REFER TO STRUCTURAL DRAWINGS FOR WOOD SHEATHING SPECIFICATIONS)
9. PLYWOOD BACKING PANELS
10. BUILDING WRAP

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. LUMBER: DOC PS 20 AND APPLICABLE RULES OF GRADING AGENCIES CERTIFIED BY THE AMERICAN LUMBER STANDARDS COMMITTEE BOARD OF REVIEW.
1. FACTORY MARK EACH PIECE OF LUMBER WITH GRADE STAMP OF GRADING AGENCY.
2. FOR EXPOSED LUMBER INDICATED TO RECEIVE A STAINED OR NATURAL FINISH, MARK GRADE STAMP ON END OR BACK OF EACH PIECE OR CMTR OR SIMILAR AND PROVIDE CERTIFICATES OF GRADE COMPLIANCE ISSUED BY GRADING AGENCY.
3. PROVIDE DRY LUMBER WITH 19 PERCENT MAXIMUM MOISTURE CONTENT AT TIME OF DRESSING FOR 2-INCH NOMINAL THICKNESS OR LESS, UNLESS OTHERWISE INDICATED.

B. ENGINEERED WOOD PRODUCTS: ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION AND FOR WHICH CURRENT MODEL CODE RESEARCH OR EVALUATION REPORTS EXIST THAT SHOW COMPLIANCE WITH BUILDING CODE IN EFFECT FOR PROJECT.

C. WOOD STRUCTURAL PANELS:
1. PLYWOOD: DOC PS 1.
2. ORIENTED STRAND BOARD: DOC PS 2.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

PRESERVATIVE TREATMENT BY PRESSURE PROCESS: AWPA C2 (LUMBER) AND AWPA C9 (PLYWOOD), EXCEPT THAT LUMBER THAT IS NOT IN CONTACT WITH THE GROUND AND IS CONTINUOUSLY PROTECTED FROM LIQUID WATER MAY BE TREATED ACCORDING TO AWPA C31 WITH INORGANIC BORON (SBX).

PRESSURE TREAT ALL LUMBER DESIGNATED AS "TREATED" ON THE DRAWINGS AND/OR OTHER SECTIONS OF THESE SPECIFICATIONS TO COMPLY WITH AWPA STANDARD C2. THE PRESENCE OF AWPB QUALITY MARK, LP2 SHALL BE ACCEPTABLE EVIDENCE OF CONFORMANCE TO THIS SPECIFICATION.

2.3 DIMENSION LUMBER

GENERAL: OF GRADES INDICATED ACCORDING TO THE AMERICAN LUMBER STANDARDS COMMITTEE NATIONAL GRADING RULE PROVISION